

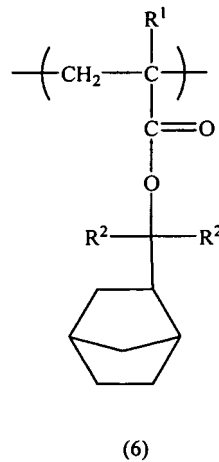
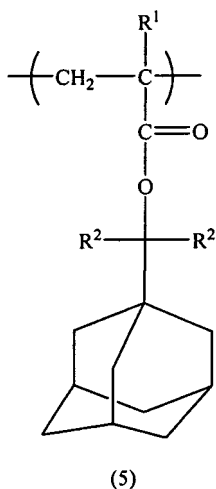
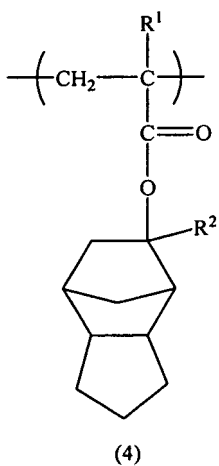
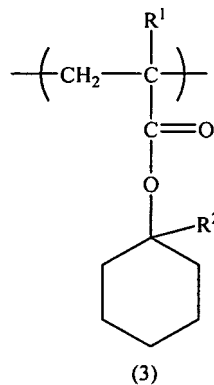
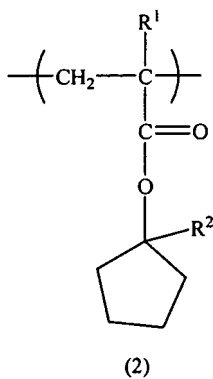
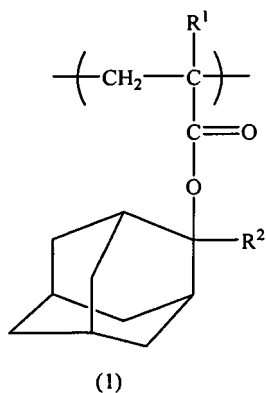
### Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

### Listing of Claims:

1. (Currently Amended) A radiation-sensitive resin composition comprising:

(A) a resin comprising a copolymer consisting of methacrylate or acrylate recurring units, wherein the copolymer comprises at least two recurring units of the following formulas (1) - (6),



wherein R<sup>1</sup> represents a hydrogen atom or methyl group and R<sup>2</sup> represents a substituted or unsubstituted alkyl group having 1-4 carbon atoms, two or more R<sup>2</sup> groups that may be

present being either the same or different, in the total amount of 5 - 70 mol %, but each in the amount of 1 - 49 mol %, the resin being insoluble or scarcely soluble in alkali, but becoming easily soluble in alkali by the action of an acid, and

(B) a photoacid generator;

wherein the copolymer comprises a combination of recurring units selected from the group consisting of:

a recurring unit of formula (1) and a recurring unit of formula (2);

a recurring unit of formula (1) and a recurring unit of formula (3);

a recurring unit of formula (1) and a recurring unit of formula (4);

a recurring unit of formula (1) and a recurring unit of formula (5);

a recurring unit of formula (1) and a recurring unit of formula (6);

a first recurring unit of formula (2) and a second recurring unit of formula (2);

a recurring unit of formula (2) and a recurring unit of formula (3);

a recurring unit of formula (2) and a recurring unit of formula (4);

a recurring unit of formula (2) and a recurring unit of formula (5);

a recurring unit of formula (2) and a recurring unit of formula (6);

a first recurring unit of formula (3) and a second recurring unit of formula (3);

a recurring unit of formula (3) and a recurring unit of formula (4);

a recurring unit of formula (3) and a recurring unit of formula (5);

a recurring unit of formula (3) and a recurring unit of formula (6);

a first recurring unit of formula (4) and a second recurring unit of formula (4);

a recurring unit of formula (4) and a recurring unit of formula (5);

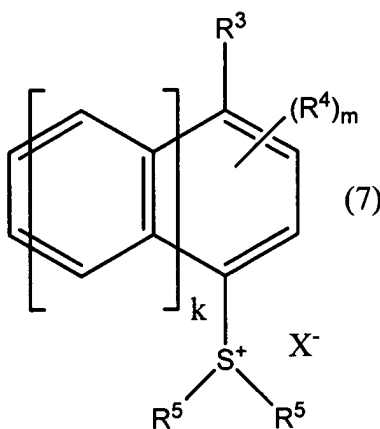
a recurring unit of formula (4) and a recurring unit of formula (6);

a first recurring unit of formula (5) and a second recurring unit of formula (5);

a recurring unit of formula (5) and a recurring unit of formula (6); and

a first recurring unit of formula (6) and a second recurring unit of formula (6).

2. (Previously Presented) The radiation-sensitive resin composition according to Claim 1, wherein the photoacid generator (B) is compound shown by the formula (7),

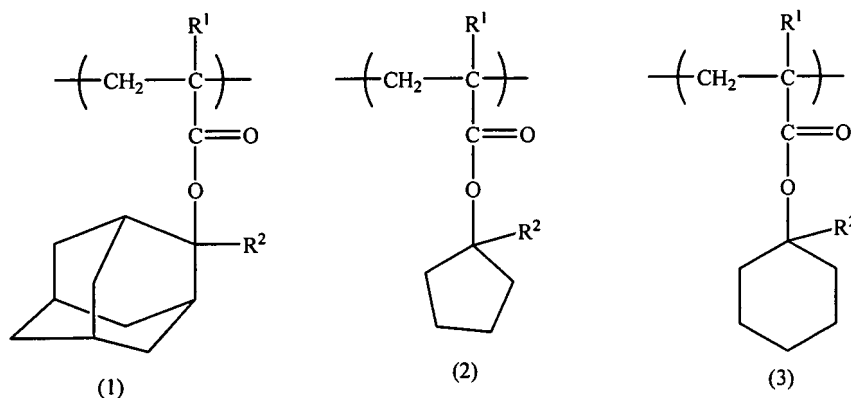


wherein  $R^3$  represents a hydrogen atom, hydroxyl group, linear or branched alkyl group having 1 - 10 carbon atoms, linear or branched alkoxy group having 1 - 10 carbon atoms, or linear or branched alkoxycarbonyl group having 2 - 11 carbon atoms,  $R^4$  represents a linear or branched alkyl group having 1 - 10 carbon atoms,  $R^5$  individually represents a linear or branched alkyl group having 1 - 10 carbon atoms, substituted or unsubstituted phenyl group, or substituted or unsubstituted naphthyl group, or two  $R^5$  groups bond to form a substituted or unsubstituted divalent group having 2 - 10 carbon atoms,  $k$  is an integer of 0 to 2,  $X^-$  represents an anion represented by the formula  $R^6C_nF_{2n}SO_3^-$  (wherein  $R^6$  represents a fluorine atom or substituted or unsubstituted monovalent hydrocarbon group and  $n$  is an integer of 1 to 10), and  $m$  is an integer of 0 to 10.

3. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the resin (A) and the photoacid generator (B) are dissolved in a solvent comprising at least one compound selected from the group consisting of propylene glycol mono-methyl ether acetate, 2-heptanone, and cyclohexanone.

4. (Currently Amended) A radiation-sensitive resin composition comprising:

(A) a resin comprising a copolymer consisting of methacrylate or acrylate recurring units, wherein the copolymer comprises at least two recurring units of the following formulas (1) - (3),



wherein  $R^1$  represents a hydrogen atom or methyl group and  $R^2$  represents a substituted or unsubstituted alkyl group having 1 - 4 carbon atoms, two or more  $R^2$  groups that may be present being either the same or different, in the total amount of 5 - 70 mol %, but each in the amount of 1 - 49 mol %, the resin being insoluble or scarcely soluble in alkali, but becoming easily soluble in alkali by the action of an acid, and

(B) a photoacid generator;

wherein the copolymer comprises a combination of recurring units selected from the group consisting of:

a recurring unit of formula (1) and a recurring unit of formula (2);

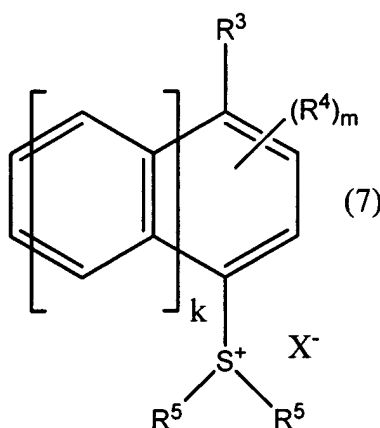
a recurring unit of formula (1) and a recurring unit of formula (3);

a first recurring unit of formula (2) and a second recurring unit of formula (2);

a recurring unit of formula (2) and a recurring unit of formula (3); and

a first recurring unit of formula (3) and a second recurring unit of formula (3).

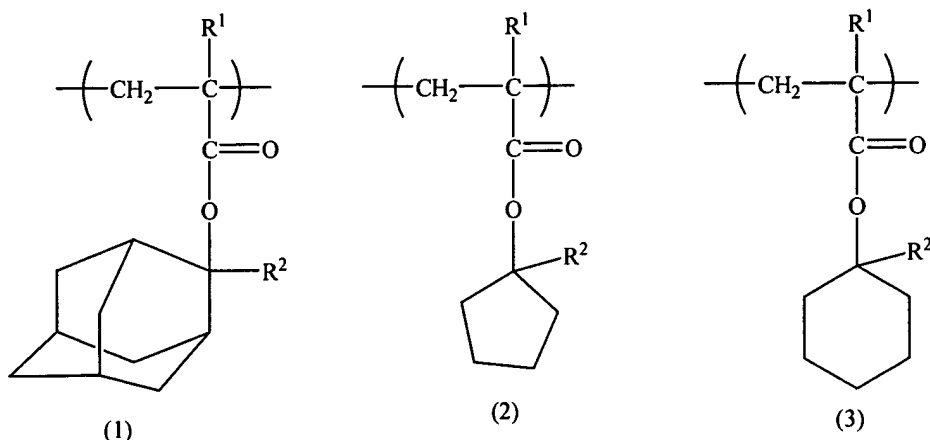
5. (Previously Presented) The radiation-sensitive resin composition according to Claim 4, wherein the photoacid generator (B) is the compound shown by the formula (7),



wherein  $R^3$  represents a hydrogen atom, hydroxyl group, linear or branched alkyl group having 1 - 10 carbon atoms, linear or branched alkoxy group having 1 - 10 carbon atoms, or linear or branched alkoxycarbonyl group having 2 - 11 carbon atoms,  $R^4$  represents a linear or branched alkyl group having 1 - 10 carbon atoms,  $R^5$  individually represents a linear or branched alkyl group having 1 - 10 carbon atoms, substituted or unsubstituted phenyl group, or substituted or unsubstituted naphthyl group, or two  $R^5$  groups bond to form a substituted or unsubstituted divalent group having 2 - 10 carbon atoms,  $k$  is an integer of 0 to 2,  $X^-$  represents an anion represented by the formula  $R^6C_nF_{2n}SO_3^-$  (wherein  $R^6$  represents a fluorine atom or substituted or unsubstituted monovalent hydrocarbon group and  $n$  is an integer of 1 to 10), and  $m$  is an integer of 0 to 10.

6. (Previously Presented) The radiation-sensitive composition according to Claim 4, wherein the resin (A) and the photoacid generator (B) are dissolved in a solvent comprising at least one compound selected from the group consisting of propylene glycol mono-methyl ether acetate, 2-heptanone, and cyclohexanone.

7. (Currently Amended) A radiation-sensitive resin composition comprising,  
 (A) a resin comprising a copolymer consisting of methacrylate or acrylate recurring units, wherein the copolymer comprises at least one recurring unit of the following formulas (1) - (3),



wherein  $\text{R}^1$  represents a hydrogen atom or methyl group and  $\text{R}^2$  is a methyl group, and at least one recurring unit of the above formulas (1) - (3), wherein  $\text{R}^1$  represents a hydrogen atom or methyl group and  $\text{R}^2$  represents a substituted or unsubstituted alkyl group having 1 - 4 carbon atoms, excluding a methyl group, two or more  $\text{R}^2$  groups that may be present being either the same or different, in the total amount of 5 - 70 mol %, but each in the amount of 1 - 49 mol %, the resin being insoluble or scarcely soluble in alkali, but becoming easily soluble in alkali by the action of an acid, and

(B) a photoacid generator;

wherein the copolymer comprises a combination of recurring units selected from the group consisting of:

a recurring unit of formula (1) and a recurring unit of formula (2);

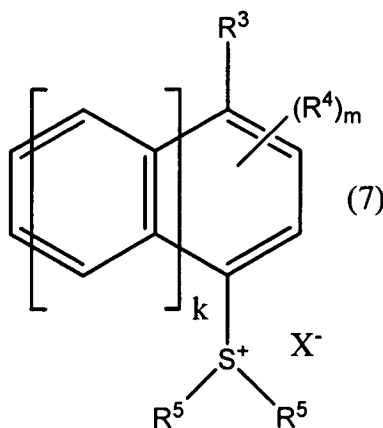
a recurring unit of formula (1) and a recurring unit of formula (3);

a first recurring unit of formula (2) and a second recurring unit of formula (2);

a recurring unit of formula (2) and a recurring unit of formula (3); and

a first recurring unit of formula (3) and a second recurring unit of formula (3).

8. (Previously Presented) The radiation-sensitive resin composition according to Claim 7, wherein the photoacid generator (B) is the compound shown by the formula (7),

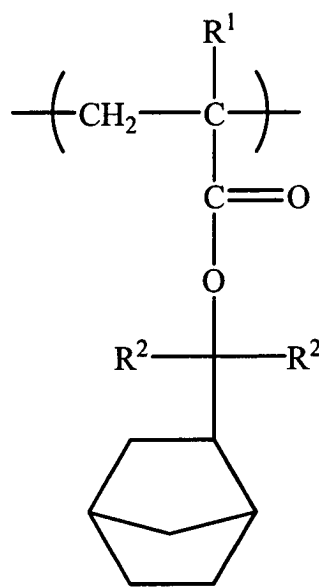


wherein  $R^3$  represents a hydrogen atom, hydroxyl group, linear or branched alkyl group having 1 - 10 carbon atoms, linear or branched alkoxy group having 1 - 10 carbon atoms, or linear or branched alkoxy carbonyl group having 2 - 11 carbon atoms,  $R^4$  represents a linear or branched alkyl group having 1 - 10 carbon atoms,  $R^5$  individually represents a linear or branched alkyl group having 1 - 10 carbon atoms, substituted or unsubstituted phenyl group, or substituted or unsubstituted naphthyl group, or two  $R^5$  groups bond to form a substituted or unsubstituted divalent group having 2 - 10 carbon atoms,  $k$  is an

integer of 0 to 2,  $X^-$  represents an anion represented by the formula  $R^6C_nF_{2n}SO_3^-$  (wherein  $R^6$  represents a fluorine atom or substituted or unsubstituted monovalent hydrocarbon group and n is an integer of 1 to 10), and m is an integer of 0 to 10.

9. (Previously Presented) The radiation-sensitive resin composition according to Claim 7, wherein the resin (A) and the photoacid generator (B) are dissolved in a solvent comprising at least one compound selected from the group consisting of propylene glycol mono-methyl ether acetate, 2-heptanone, and cyclohexanone.

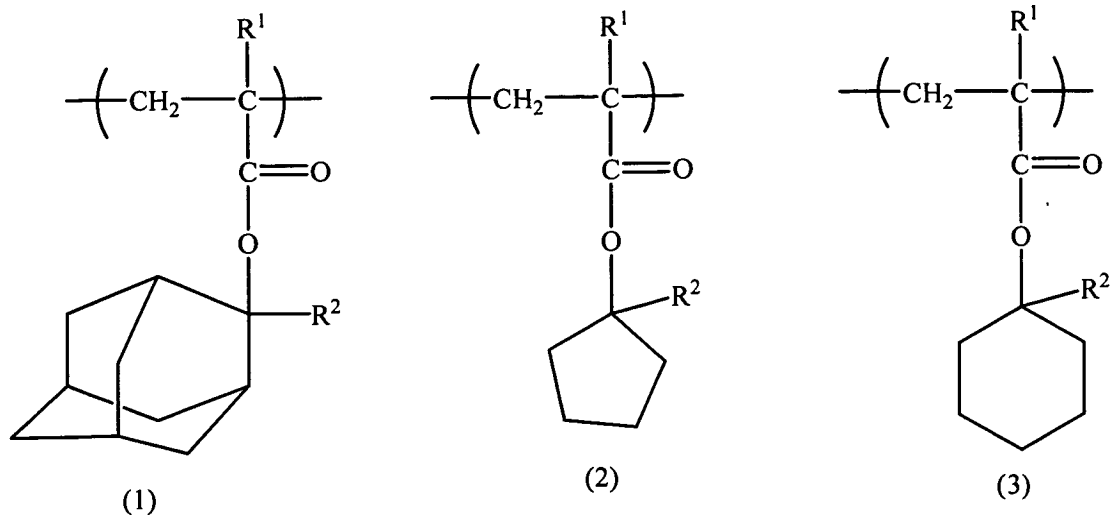
10. (Previously Presented) A radiation-sensitive resin composition comprising,  
(A) a resin comprising at least one recurring unit of the following formula (6),



(6)

wherein  $R^2$  is a methyl group, and at least one recurring unit selected from the group consisting of the recurring units of the formulas (1) - (3),

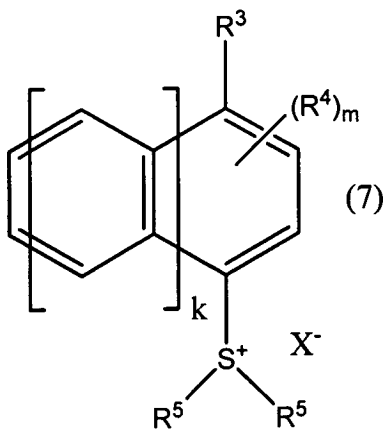




wherein  $\text{R}^1$  represents a hydrogen atom or methyl group and  $\text{R}^2$  is a methyl group, in the total amount of 5 - 70 mol %, but each in the amount of 1 - 49 mol %, the resin being insoluble or scarcely soluble in alkali, but becoming easily soluble in alkali by the action of an acid, and

(B) a photoacid generator.

11. (Previously Presented) The radiation-sensitive resin composition according to Claim 10, wherein the photoacid generator (B) is the compound shown by the formula (7),

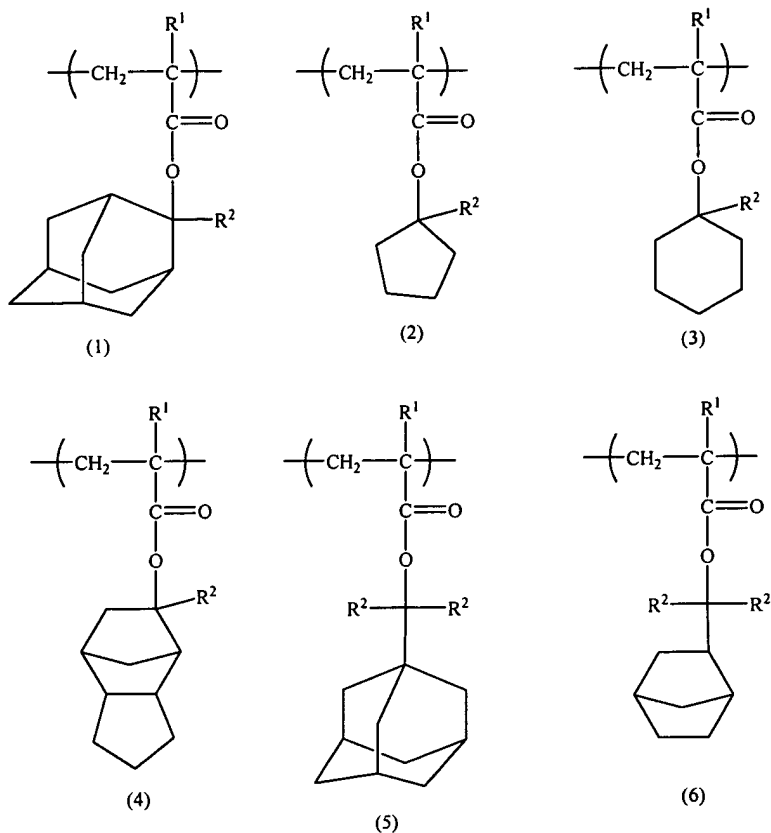


wherein  $R^3$  represents a hydrogen atom, hydroxyl group, linear or branched alkyl group having 1 - 10 carbon atoms, linear or branched alkoxy group having 1 - 10 carbon atoms, or linear or branched alkoxycarbonyl group having 2 - 11 carbon atoms,  $R^4$  represents a linear or branched alkyl group having 1 - 10 carbon atoms,  $R^5$  individually represents a linear or branched alkyl group having 1 - 10 carbon atoms, substituted or unsubstituted phenyl group, or substituted or unsubstituted naphthyl group, or two  $R^5$  groups bond to form a substituted or unsubstituted divalent group having 2 - 10 carbon atoms,  $k$  is an integer of 0 to 2,  $X^-$  represents an anion represented by the formula  $R^6C_nF_{2n}SO_3^-$  (wherein  $R^6$  represents a fluoroine atom or substituted or unsubstituted monovalent hydrocarbon group and  $n$  is an integer of 1 to 10), and  $m$  is an integer of 0 to 10.

12. (Previously Presented) The radiation-sensitive resin composition according to Claim 10, wherein the resin (A) and the photoacid generator (B) are dissolved in a solvent comprising at least one compound selected from the group consisting of propylene glycol mono-methyl ether acetate, 2-heptanone, and cyclohexanone.

13. (New) A radiation-sensitive resin composition comprising:

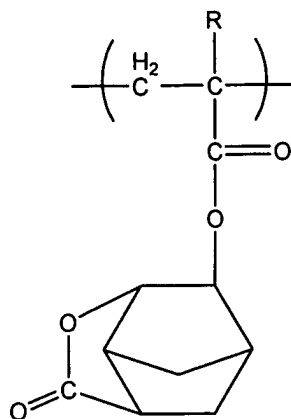
(A) a resin comprising at least two recurring units of the following formulas (1) - (6),



wherein  $\text{R}^1$  represents a hydrogen atom or methyl group and  $\text{R}^2$  represents a substituted or unsubstituted alkyl group having 1-4 carbon atoms, two or more  $\text{R}^2$  groups that may be present being either the same or different, in the total amount of 5 - 70 mol %, but each in the amount of 1 - 49 mol %, the resin being insoluble or scarcely soluble in alkali, but becoming easily soluble in alkali by the action of an acid; and

(B) a photoacid generator;

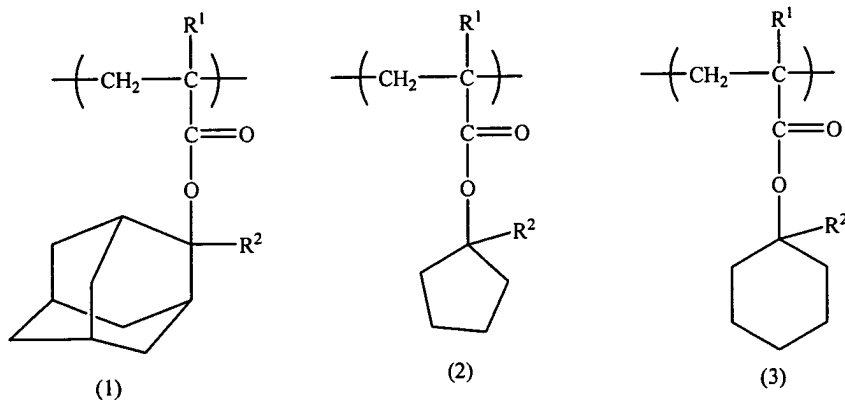
wherein the resin further comprises the recurring unit shown by the following formula:



wherein R represents a hydrogen atom or a methyl group.

14. (New) A radiation-sensitive resin composition comprising:

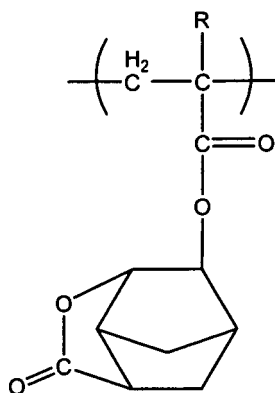
(A) a resin comprising at least two recurring units of the following formulas (1) - (3),



wherein  $R^1$  represents a hydrogen atom or methyl group and  $R^2$  represents a substituted or unsubstituted alkyl group having 1 - 4 carbon atoms, two or more  $R^2$  groups that may be present being either the same or different, in the total amount of 5 - 70 mol %, but each in the amount of 1 - 49 mol %, the resin being insoluble or scarcely soluble in alkali, but becoming easily soluble in alkali by the action of an acid; and

(B) a photoacid generator;

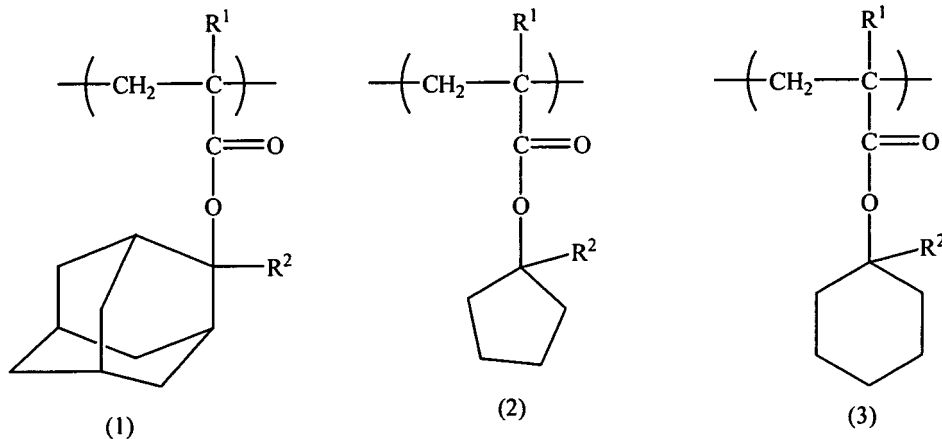
wherein the resin further comprises the recurring unit shown by the following formula:



wherein R represents a hydrogen atom or a methyl group.

15. (New) A radiation-sensitive resin composition comprising:

(A) a resin comprising at least one recurring unit of the following formulas (1) - (3),

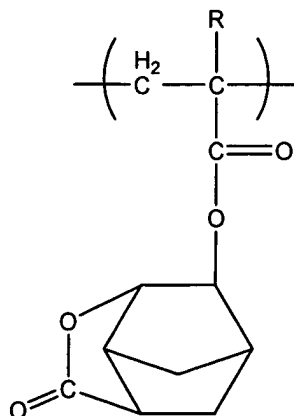


wherein  $R^1$  represents a hydrogen atom or methyl group and  $R^2$  is a methyl group, and at least one recurring unit of the above formulas (1) - (3), wherein  $R^1$  represents a hydrogen atom or methyl group and  $R^2$  represents a substituted or unsubstituted alkyl group having 1 - 4 carbon atoms, excluding a methyl group, two or more  $R^2$  groups that may be present being either the same or different, in the total amount of 5 - 70 mol %, but each in the

amount of 1 - 49 mol %, the resin being insoluble or scarcely soluble in alkali, but becoming easily soluble in alkali by the action of an acid; and

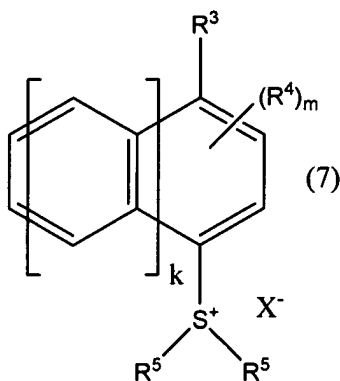
(B) a photoacid generator;

wherein the resin further comprises the recurring unit shown by the following formula:



wherein R represents a hydrogen atom or a methyl group.

16. (New) The radiation-sensitive resin composition according to Claim 13, wherein the photoacid generator (B) is compound shown by the formula (7),



wherein:

$R^3$  represents a hydrogen atom, hydroxyl group, linear or branched alkyl group having 1 - 10 carbon atoms, linear or branched alkoxy group having 1 - 10 carbon atoms, or linear or branched alkoxy carbonyl group having 2 - 11 carbon atoms;

$R^4$  represents a linear or branched alkyl group having 1 - 10 carbon atoms;

$R^5$  individually represents a linear or branched alkyl group having 1 - 10 carbon atoms, substituted or unsubstituted phenyl group, or substituted or unsubstituted naphthyl group, or two  $R^5$  groups bond to form a substituted or unsubstituted divalent group having 2 - 10 carbon atoms;

k is an integer of 0 to 2;

$X^-$  represents an anion represented by the formula  $R^6C_nF_{2n}SO_3^-$  wherein  $R^6$  represents a fluorine atom or substituted or unsubstituted monovalent hydrocarbon group and n is an integer of 1 to 10; and

m is an integer of 0 to 10.

17. (New) The radiation-sensitive resin composition according to Claim 13, wherein the resin (A) and the photoacid generator (B) are dissolved in a solvent comprising at least one compound selected from the group consisting of propylene glycol mono-methyl ether acetate, 2-heptanone, and cyclohexanone.

18. (New) The radiation-sensitive resin composition according to Claim 13, wherein the resin comprises at least two recurring units selected from the group consisting of formula (1), formula (2) and formula (3).

19. (New) The radiation-sensitive resin composition according to Claim 13, wherein the resin comprises:

at least one recurring unit selected from the group consisting of formula (1), formula (2) and formula (3) wherein  $R^1$  represents a hydrogen atom or a methyl group and  $R^2$  is a methyl group; and

at least one recurring unit selected from the group consisting of formula (1), formula (2) and formula (3) wherein  $R^1$  represents a hydrogen atom or a methyl group and  $R^2$  represents a substituted or unsubstituted alkyl group having 1 - 4 carbon atoms, excluding a methyl group.